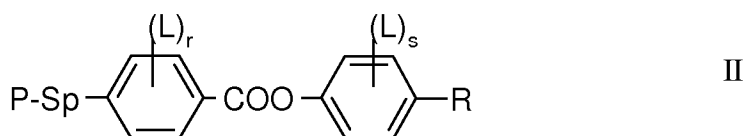
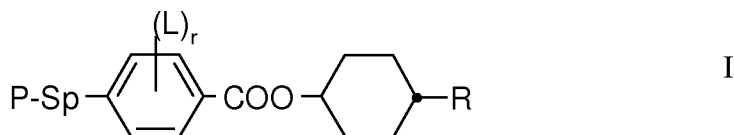


This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented) A method of preparing a polymer film or marking comprising printing a polymerizable liquid crystal material onto a substrate and polymerizing said liquid crystal material to form the polymer film or marking, wherein the polymerizable liquid crystal material does not contain a solvent, thinner, dispersion agent, polymeric binder, or a monomer compound that can be converted into the polymeric binder by polymerization, and wherein the polymerizable liquid crystal material comprises at least one compound of formula I and/or at least one compound of formula II



wherein

P is a polymerizable group,

Sp is a spacer group S-X, wherein S is alkylene with up to 20 C atoms which may be unsubstituted, mono- or poly-substituted in each case independently by F, Cl, Br, I or CN, one or more non-adjacent CH₂ groups to be optionally being replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

R is halogen, straight chain or branched alkyl with 1 to 20 C atoms, that is unsubstituted, mono- or polysubstituted, in each case independently, by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -

SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

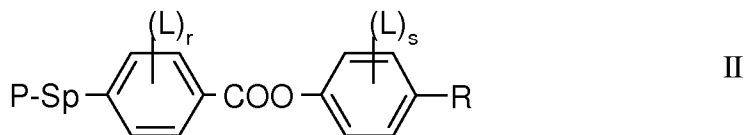
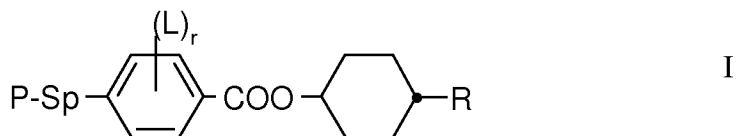
R⁰ and R⁰⁰ are, independently of each other, H or alkyl with 1 to 12 C atoms,

L is F, Cl, Br, or an alkyl, alkoxy, alkylcarbonyl or alkoxy carbonyl group with 1 to 12 C atoms, wherein one or more H atoms, each independently, are optionally replaced by F or Cl, and

r and s are independently of each other 0, 1, 2, 3 or 4.

Claim 2. (Previously Presented) A method according to claim 1, wherein the polymerizable LC material is polymerised at a temperature below 60 °C.

Claim 3. (Previously Presented) A method of preparing a polymer film, marking or pigment, comprising printing said polymer film, marking or pigment with a polymerizable liquid crystal material comprising at least one compound of formula I and/or at least one compound of formula II



wherein

P is a polymerizable group,

Sp is a spacer group S-X, wherein S is alkylene with up to 20 C atoms which may be unsubstituted, mono- or poly-substituted in each case independently by F, Cl, Br, I or CN, one or more non-adjacent CH₂

groups to be optionally being replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

X is -O-, -S-, -CO-, -COO-, -OCO-, -CO-NR⁰-, -NR⁰-CO-, -OCH₂-, -CH₂O-, -SCH₂-, -CH₂S-, -CF₂O-, -OCF₂-, -CF₂S-, -SCF₂-, -CF₂CH₂-, -CH₂CF₂-, -CF₂CF₂-, -CH=N-, -N=CH-, -N=N-, -CH=CR⁰-, -CX¹=CX²-, -C≡C-, -CH=CH-COO-, -OCO-CH=CH- or a single bond,
X¹ and X² are, independently of each other, H, F, Cl or CN, and

R is halogen, straight chain or branched alkyl with 1 to 20 C atoms, that is unsubstituted, mono- or polysubstituted, in each case independently, by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

R⁰ and R⁰⁰ are, independently of each other, H or alkyl with 1 to 12 C atoms,

L is F, Cl, Br, or an alkyl, alkoxy, alkylcarbonyl or alkoxy carbonyl group with 1 to 12 C atoms, wherein one or more H atoms, each independently, are optionally replaced by F or Cl, and

r and s are independently of each other 0, 1, 2, 3 or 4, and
the polymerizable liquid crystal material does not contain a solvent, thinner, dispersion agent, polymeric binder, or a monomer compound that can be converted into the polymeric binder by polymerization.

Claim 4. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material is a nematic material.

Claim 5. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material is a chiral nematic or cholesteric material.

Claim 6. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material has either a nematic phase or a chiral nematic or cholesteric phase at room temperature.

Claim 7. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material comprises at least one chiral compound which can be polymerizable or non-polymerizable.

Claim 8. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material comprises at least one compound of formula I and/or II wherein R is a chiral group.

Claim 9. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material comprises at least one compound which induces and/ or enhances planar alignment

Claim 10. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material further comprises at least one polymerizable mesogenic compound having two or more polymerizable groups.

Claim 11. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material further comprises at least at least one polymerizable mesogenic compound having one polymerizable group.

Claim 12. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material comprises

3 - 60 % of one or more di reactive mesogenic compounds,

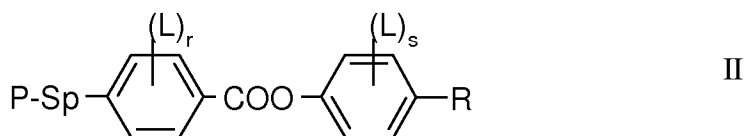
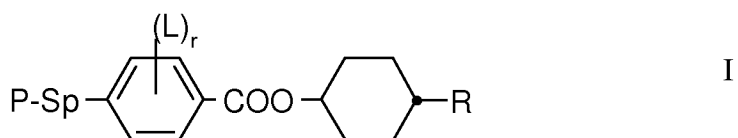
7 - 90 % of one or more monoreactive mesogenic compounds of formula I and II,

0 to 70 % of one or more further monoreactive mesogenic compounds,

0.1 to 10 % of one or more surfactants, and

0.1 to 10 % of one or more photoinitiators.

Claim 13. (Previously Presented) A polymerizable liquid crystal material comprising at least one compound of formula I and at least one compound of formula II



wherein

P is a polymerizable group,

Sp is a spacer group S-X, wherein S is alkylene with up to 20 C atoms which may be unsubstituted, mono- or poly-substituted in each case independently by F, Cl, Br, I or CN, one or more non-adjacent CH₂ groups to be optionally being replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

X is -O-, -S-, -CO-, -COO-, -OCO-, -CO-NR⁰-, -NR⁰-CO-, -OCH₂-, -CH₂O-, -SCH₂-, -CH₂S-, -CF₂O-, -OCF₂-, -CF₂S-, -SCF₂-, -CF₂CH₂-, -CH₂CF₂-, -CF₂CF₂-, -CH=N-, -N=CH-, -N=N-, -CH=CR⁰-, -CX¹=CX²-, -C≡C-, -CH=CH-COO-, -OCO-CH=CH- or a single bond,

X¹ and X² are, independently of each other, H, F, Cl or CN, and

R is halogen, straight chain or branched alkyl with 1 to 20 C atoms, that is unsubstituted, mono- or polysubstituted, in each case independently, by F, Cl, Br, I or CN, and wherein one or more non-adjacent CH₂ groups are optionally replaced, in each case independently from one another, by -O-, -S-, -NH-, -NR⁰-, -SiR⁰R⁰⁰-, -CO-, -COO-, -OCO-, -OCO-O-, -SO₂-, -S-CO-, -CO-S-, -CH=CH- or -C≡C- in such a manner that O and/or S atoms are not linked directly to one another,

R⁰ and R⁰⁰ are, independently of each other, H or alkyl with 1 to 12 C atoms,

L is F, Cl, Br, or an alkyl, alkoxy, alkylcarbonyl or alkoxy carbonyl group with 1 to 12 C atoms, wherein one or more H atoms, each independently, are optionally replaced by F or Cl, and

r and s are independently of each other 0, 1, 2, 3 or 4, and the polymerizable liquid crystal material does not contain a solvent, thinner, dispersion agent, polymeric binder, or a monomer compound that can be converted into the polymeric binder by polymerization.

Claim 14. (Previously Presented) A liquid crystal polymer, liquid crystal pigment, oriented liquid crystal polymer film or marking obtained from a polymerizable liquid crystal material according to claim 13.

Claim 15. (Currently Amended) A liquid crystal pigment obtained from a polymer or polymer film produced from a polymerizable liquid crystal material according to claim 14 13.

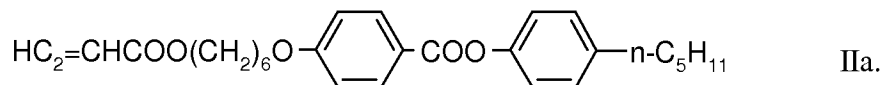
Claim 16. (Currently Amended) An optical, electrooptical, decorative, security, cosmetic, diagnostic, electric, electronic, charge transport, semiconductor, optical recording, electroluminescent, photoconductor ~~and~~ or electrophotographic item comprising a polymerisable liquid crystal material according to claim 13, or a liquid crystal polymer, liquid crystal pigment, oriented liquid crystal polymer film or marking obtained from said polymerisable liquid crystal material.

Claim 17. (Previously Presented) A decorative, security, authentication or identification marking, thread or device comprising a polymerizable liquid crystal material according to claim 13, or a liquid crystal polymer, liquid crystal pigment, oriented liquid crystal polymer film or marking obtained from said polymerizable liquid crystal material.

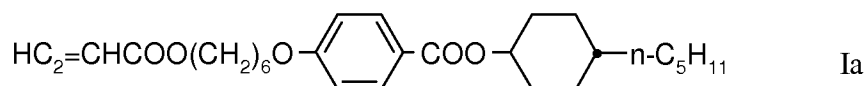
Claim 18. (Previously Presented) A decorative, security, authentication or identification marking, thread or device according to claim 17, comprising at least two chiral nematic materials that differ from each other in their handedness and/or their reflection color and/or their color flop.

Claim 19. (Previously Presented) An object, document of value or hot stamping foil comprising a decorative, security, authentication or identification marking, thread or device according to claim 18.

Claim 20. (Previously Presented) A polymerizable liquid crystal compound that is of formula IIa



Claim 21. (Previously Presented) A polymerizable liquid crystal material comprising the compound of claim 20 and the compound of formula Ia



Claim 22. (Previously Presented) A polymerizable liquid crystal material according to claim 13, wherein

in the compound of formula I or II,
r and s are 0,
P is an acrylate, methacrylate, vinyl or epoxy group,
L is F or methyl, or
R is straight chain alkyl with 1 to 15 C atoms, or
wherein in the compound of formula I,
r is 1 or 2, or
wherein in the compound of formula II,
r or s is 1 or 2, or both r and s are 1 or 2.

Claim 23. (Previously Presented) A polymerizable liquid crystal material according to claim 13, wherein in the compound of formula I and/or II, R is a chiral group.

Claim 24. (Previously Presented) A method according to claim 1, wherein the polymerizable liquid crystal material has a nematic or cholesteric phase at 10° C.

Claim 25. (Previously Presented) A method according to claim 3, wherein the polymerizable liquid crystal material has a nematic or cholesteric phase at 10° C.

Claim 26. (Previously Presented) A material according to claim 13, wherein the polymerizable liquid crystal material has a nematic or cholesteric phase at 10° C.